

$$\frac{d}{dt} \left(\frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}, \quad \frac{d}{dt} \left(\frac{\partial L}{\partial \dot{y}} \right) = \frac{\partial L}{\partial y}$$

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ID NO:114), Figure 61 (SEQ ID NO:120), Figure 63 (SEQ ID NO:125), Figure 65 (SEQ ID NO:127), Figures 67A-B (SEQ ID NO:129), Figure 69 (SEQ ID NO:131), Figure 71 (SEQ ID NO:136) and Figure 73 (SEQ ID NO:138).

4. Isolated nucleic acid having at least 80% nucleic acid sequence identity to the full-length coding sequence of the DNA deposited under any ATCC accession number shown in Table 10.

5. A vector comprising the nucleic acid of any one of Claims 1 to 4.

6. The vector of Claim 5 operably linked to control sequences recognized by a host cell transformed with the vector.

7. A host cell comprising the vector of Claim 5.

8. The host cell of Claim 7, wherein said cell is a CHO cell.

9. The host cell of Claim 7, wherein said cell is an *E. coli*.

10. The host cell of Claim 7, wherein said cell is a yeast cell.

11. A process for producing a PRO polypeptides comprising culturing the host cell of Claim 7 under conditions suitable for expression of said PRO polypeptide and recovering said PRO polypeptide from the cell culture.

12. An isolated polypeptide having at least 80% amino acid sequence identity to an amino acid sequence selected from the group consisting of the amino acid sequence shown in Figure 2 (SEQ ID NO:4), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:13), Figure 10 (SEQ ID NO:15), Figure 12 (SEQ ID NO:17), Figure 14 (SEQ ID NO:22), Figure 16 (SEQ ID NO:24), Figure 18 (SEQ ID NO:29), Figure 20 (SEQ ID NO:32), Figure 22 (SEQ ID NO:39), Figure 24 (SEQ ID NO:41), Figure 26 (SEQ ID NO:52), Figure 28 (SEQ ID NO:54), Figure 30 (SEQ ID NO:56), Figure 32 (SEQ ID NO:58), Figure 34 (SEQ ID NO:63), Figure 36 (SEQ ID NO:65), Figure 38 (SEQ ID NO:73), Figure 40 (SEQ ID NO:78), Figure 42 (SEQ ID NO:80), Figure 44 (SEQ ID NO:84), Figure 46 (SEQ ID NO:86), Figure 48 (SEQ ID NO:91), Figure 50 (SEQ ID NO:99), Figure 52 (SEQ ID NO:104), Figure 54 (SEQ ID NO:106), Figure 56 (SEQ ID NO:108), Figure 58 (SEQ ID NO:110), Figure 60 (SEQ ID NO:115), Figure 62 (SEQ ID NO:121), Figure 64 (SEQ ID NO:126), Figure 66 (SEQ ID NO:128), Figure 68 (SEQ ID NO:130), Figure 70 (SEQ ID NO:132), Figure 72 (SEQ ID NO:137) and Figure 74 (SEQ ID NO:139).

NO:52), Figure 28 (SEQ ID NO:54), Figure 30 (SEQ ID NO:56), Figure 32 (SEQ ID NO:58), Figure 34 (SEQ ID NO:63), Figure 36 (SEQ ID NO:65), Figure 38 (SEQ ID NO:73), Figure 40 (SEQ ID NO:78), Figure 42 (SEQ ID NO:80), Figure 44 (SEQ ID NO:84), Figure 46 (SEQ ID NO:86), Figure 48 (SEQ ID NO:91), Figure 50 (SEQ ID NO:99), Figure 52 (SEQ ID NO:104), Figure 54 (SEQ ID NO:106), Figure 56 (SEQ ID NO:108), Figure 58 (SEQ ID NO:110), Figure 60 (SEQ ID NO:115), Figure 62 (SEQ ID NO:121), Figure 64 (SEQ ID NO:126), Figure 66 (SEQ ID NO:128), Figure 68 (SEQ ID NO:130), Figure 70 (SEQ ID NO:132), Figure 72 (SEQ ID NO:137) or Figure 74 (SEQ ID NO:139), lacking its associated signal peptide;

(b) a nucleotide sequence encoding an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:4), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:13), Figure 10 (SEQ ID NO:15), Figure 12 (SEQ ID NO:17), Figure 14 (SEQ ID NO:22), Figure 16 (SEQ ID NO:24), Figure 18 (SEQ ID NO:29), Figure 20 (SEQ ID NO:32), Figure 22 (SEQ ID NO:39), Figure 24 (SEQ ID NO:41), Figure 26 (SEQ ID NO:52), Figure 28 (SEQ ID NO:54), Figure 30 (SEQ ID NO:56), Figure 32 (SEQ ID NO:58), Figure 34 (SEQ ID NO:63), Figure 36 (SEQ ID NO:65), Figure 38 (SEQ ID NO:73), Figure 40 (SEQ ID NO:78), Figure 42 (SEQ ID NO:80), Figure 44 (SEQ ID NO:84), Figure 46 (SEQ ID NO:86), Figure 48 (SEQ ID NO:91), Figure 50 (SEQ ID NO:99), Figure 52 (SEQ ID NO:104), Figure 54 (SEQ ID NO:106), Figure 56 (SEQ ID NO:108), Figure 58 (SEQ ID NO:110), Figure 60 (SEQ ID NO:115), Figure 62 (SEQ ID NO:121), Figure 64 (SEQ ID NO:126), Figure 66 (SEQ ID NO:128), Figure 68 (SEQ ID NO:130), Figure 70 (SEQ ID NO:132), Figure 72 (SEQ ID NO:137) or Figure 74 (SEQ ID NO:139), with its associated signal peptide; or

(c) a nucleotide sequence encoding an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:4), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:13), Figure 10 (SEQ ID NO:15), Figure 12 (SEQ ID NO:17), Figure 14 (SEQ ID NO:22), Figure 16 (SEQ ID NO:24), Figure 18 (SEQ ID NO:29), Figure 20 (SEQ ID NO:32), Figure 22 (SEQ ID NO:39), Figure 24 (SEQ ID NO:41), Figure 26 (SEQ ID NO:52), Figure 28 (SEQ ID NO:54), Figure 30 (SEQ ID NO:56), Figure 32 (SEQ ID NO:58), Figure 34 (SEQ ID NO:63), Figure 36 (SEQ ID NO:65), Figure 38 (SEQ ID NO:73), Figure 40 (SEQ ID NO:78), Figure 42 (SEQ ID NO:80), Figure 44 (SEQ ID NO:84), Figure 46 (SEQ ID NO:86), Figure 48 (SEQ ID NO:91), Figure 50 (SEQ ID NO:99), Figure 52 (SEQ ID NO:104), Figure 54 (SEQ ID NO:106), Figure 56 (SEQ ID NO:108), Figure 58 (SEQ ID NO:110), Figure 60 (SEQ ID NO:115), Figure 62 (SEQ ID NO:121), Figure 64 (SEQ ID NO:126), Figure 66 (SEQ ID NO:128), Figure 68 (SEQ ID NO:130), Figure 70 (SEQ ID NO:132), Figure 72 (SEQ ID NO:137) or Figure 74 (SEQ ID NO:139), lacking its associated signal peptide.

21. An isolated polypeptide having at least 80% amino acid sequence identity to:

(a) the polypeptide shown in Figure 2 (SEQ ID NO:4), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:13), Figure 10 (SEQ ID NO:15), Figure 12 (SEQ ID NO:17), Figure 14 (SEQ ID NO:22), Figure 16 (SEQ ID NO:24), Figure 18 (SEQ ID NO:29), Figure 20 (SEQ ID NO:32), Figure 22 (SEQ ID NO:39), Figure 24 (SEQ ID NO:41), Figure 26 (SEQ ID NO:52), Figure 28 (SEQ ID NO:54), Figure 30 (SEQ ID NO:56), Figure 32 (SEQ ID NO:58), Figure 34 (SEQ ID NO:63), Figure 36 (SEQ ID NO:65), Figure 38 (SEQ ID NO:73), Figure 40 (SEQ ID NO:78), Figure 42 (SEQ ID NO:80), Figure 44 (SEQ ID NO:84), Figure 46 (SEQ ID NO:86), Figure 48 (SEQ ID NO:91), Figure 50 (SEQ ID NO:99), Figure 52 (SEQ ID NO:104), Figure 54 (SEQ ID NO:106), Figure 56 (SEQ ID NO:108), Figure 58 (SEQ ID NO:110), Figure 60 (SEQ ID NO:115), Figure 62 (SEQ ID NO:121), Figure 64 (SEQ ID NO:126), Figure 66 (SEQ ID NO:128), Figure 68 (SEQ ID NO:130), Figure 70 (SEQ ID NO:132), Figure 72 (SEQ ID NO:137) or Figure 74 (SEQ ID NO:139), lacking its associated signal peptide.

(b) an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:4), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:13), Figure 10 (SEQ ID NO:15), Figure 12 (SEQ ID NO:17), Figure 14 (SEQ ID NO:22), Figure 16 (SEQ ID NO:24), Figure 18 (SEQ ID NO:29), Figure 20 (SEQ ID NO:32), Figure 22 (SEQ ID NO:39), Figure 24 (SEQ ID NO:41), Figure 26 (SEQ ID NO:52), Figure 28 (SEQ ID NO:54), Figure 30 (SEQ ID NO:56), Figure 32 (SEQ ID NO:58), Figure 34 (SEQ ID NO:63), Figure 36 (SEQ ID NO:65), Figure 38 (SEQ ID NO:73), Figure 40 (SEQ ID NO:78), Figure 42 (SEQ ID NO:80), Figure 44 (SEQ ID NO:84), Figure 46 (SEQ ID NO:86), Figure 48 (SEQ ID NO:91), Figure 50 (SEQ ID NO:99), Figure 52 (SEQ ID NO:104), Figure 54 (SEQ ID NO:106), Figure 56 (SEQ ID NO:108), Figure 58 (SEQ ID NO:110), Figure 60 (SEQ ID NO:115), Figure 62 (SEQ ID NO:121), Figure 64 (SEQ ID NO:126), Figure 66 (SEQ ID NO:128), Figure 68 (SEQ ID NO:130), Figure 70 (SEQ ID NO:132), Figure 72 (SEQ ID NO:137) or Figure 74 (SEQ ID NO:139), with its associated signal peptide; or

(c) an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:4), Figure 4 (SEQ ID NO:9), Figure 6 (SEQ ID NO:11), Figure 8 (SEQ ID NO:13), Figure 10 (SEQ ID NO:15), Figure 12 (SEQ ID NO:17), Figure 14 (SEQ ID NO:22), Figure 16 (SEQ ID NO:24), Figure 18 (SEQ ID NO:29), Figure 20 (SEQ ID NO:32), Figure 22 (SEQ ID NO:39), Figure 24 (SEQ ID NO:41), Figure 26 (SEQ ID NO:52), Figure 28 (SEQ ID NO:54), Figure 30 (SEQ ID NO:56), Figure 32 (SEQ ID NO:58), Figure 34 (SEQ ID NO:63), Figure 36 (SEQ ID NO:65), Figure 38 (SEQ ID NO:73), Figure 40 (SEQ ID NO:78), Figure 42 (SEQ ID NO:80), Figure 44 (SEQ ID NO:84), Figure 46 (SEQ ID NO:86), Figure 48 (SEQ ID NO:91), Figure 50 (SEQ ID NO:99), Figure 52 (SEQ ID NO:104), Figure 54 (SEQ ID NO:106), Figure 56 (SEQ ID NO:108), Figure 58 (SEQ ID NO:110), Figure 60 (SEQ ID NO:115), Figure 62 (SEQ ID NO:121), Figure 64 (SEQ ID NO:126), Figure 66 (SEQ ID NO:128), Figure 68 (SEQ ID NO:130), Figure 70 (SEQ ID NO:132), Figure 72 (SEQ ID NO:137) or Figure 74 (SEQ ID NO:139), lacking its associated signal peptide.

22. A method of detecting a polypeptide designated as A, B, C, D, E, F, G, H, or I in a sample suspected of containing an A, B, C, D, E, F, G, H, or I polypeptide, said method comprising contacting said sample with a polypeptide designated herein as J, K, L, M, N, O, P, Q, R, S or T and determining the formation of a A/J, B/K, C/L, C/M, C/N, C/J, D/O, E/P, F/Q, G/R, H/S or I/T polypeptide conjugate in said sample, wherein the formation of said conjugate is indicative of the presence of an A, B, C, D, E, F, G, H, or I polypeptide in said sample and wherein A is a PRO533 polypeptide, B is a PRO301 polypeptide, C is a

PRO187 polypeptide, D is a PRO337 polypeptide, E is a PRO1411 polypeptide, F is a PRO10096 polypeptide, G is a PRO246 polypeptide, H is a PRO6307 polypeptide, I is a PRO6003 polypeptide, J is an FGFR-4 polypeptide, K is a PRO301 polypeptide, L is an FGFR-3 polypeptide, M is an FGFR-1 polypeptide, N is an FGFR-2 polypeptide, O is a PRO6004 polypeptide, P is a PRO4356 polypeptide, Q is a PRO2630 polypeptide, R is a PRO246 polypeptide, S is a PRO265 polypeptide and T is a PRO941 polypeptide.

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23. The method according to Claim 22, wherein said sample comprises cells suspected of expressing said A, B, C, D, E, F, G, H, or I polypeptide.

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24. The method according to Claim 22, wherein said J, K, L, M, N, O, P, Q, R, S or T polypeptide is labeled with a detectable label.

25. The method according to Claim 22, wherein said J, K, L, M, N, O, P, Q, R, S or T polypeptide is attached to a solid support.

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26. A method of detecting a polypeptide designated as J, K, L, M, N, O, P, Q, R, S or T in a sample suspected of containing a J, K, L, M, N, O, P, Q, R, S or T polypeptide, said method comprising contacting said sample with a polypeptide designated herein as A, B, C, D, E, F, G, H, or I and determining the formation of a A/J, B/K, C/L, C/M, C/N, C/J, D/O, E/P, F/Q, G/R, H/S or I/T polypeptide conjugate in said sample, wherein the formation of said conjugate is indicative of the presence of a J, K, L, M, N, O, P, Q, R, S or T polypeptide in said sample and wherein A is a PRO533 polypeptide, B is a PRO301 polypeptide, C is a PRO187 polypeptide, D is a PRO337 polypeptide, E is a PRO1411 polypeptide, F is a PRO10096 polypeptide, G is a PRO246 polypeptide, H is a PRO6307 polypeptide, I is a PRO6003 polypeptide, J is an FGFR-4 polypeptide, K is a PRO301 polypeptide, L is an FGFR-3 polypeptide, M is an FGFR-1 polypeptide, N is an FGFR-2 polypeptide, O is a PRO6004 polypeptide, P is a PRO4356 polypeptide, Q is a PRO2630 polypeptide, R is a PRO246 polypeptide, S is a PRO265 polypeptide and T is a PRO941 polypeptide.

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27. The method according to Claim 26, wherein said sample comprises cells suspected of expressing said J, K, L, M, N, O, P, Q, R, S or T polypeptide.

28. The method according to Claim 26, wherein said A, B, C, D, E, F, G, H, or I polypeptide is labeled with a detectable label.

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29. The method according to Claim 26, wherein said A, B, C, D, E, F, G, H, or I polypeptide is attached to a solid support.

30. A method of linking a bioactive molecule to a cell expressing a polypeptide designated as A, B, C, D, E, F, G, H, or I, said method comprising contacting said cell with a polypeptide designated as J, K, L, M, N, O, P, Q, R, S or T that is bound to said bioactive molecule and allowing said A, B, C, D, E, F, G, H, or I and said J, K, L, M, N, O, P, Q, R, S or T polypeptides to bind to one another, thereby linking said bioactive molecules to said cell, wherein A is a PRO533 polypeptide, B is a PRO301 polypeptide, C is a PRO187 polypeptide, D is a PRO337 polypeptide, E is a PRO1411 polypeptide, F is a PRO10096 polypeptide, G is a PRO246 polypeptide, H is a PRO6307 polypeptide, I is a PRO6003 polypeptide, J is an FGFR-4 polypeptide, K is a PRO301 polypeptide, L is an FGFR-3 polypeptide, M is an FGFR-1 polypeptide, N is an FGFR-2 polypeptide, O is a PRO6004 polypeptide, P is a PRO4356 polypeptide, Q is a PRO2630 polypeptide, R is a PRO246 polypeptide, S is a PRO265 polypeptide and T is a PRO941 polypeptide.

31. The method according to Claim 30, wherein said bioactive molecule is a toxin, a radiolabel or an antibody.

32. The method according to Claim 30, wherein said bioactive molecule causes the death of said cell.

33. A method of linking a bioactive molecule to a cell expressing a polypeptide designated as J, K, L, M, N, O, P, Q, R, S or T, said method comprising contacting said cell with a polypeptide designated as A, B, C, D, E, F, G, H, or I that is bound to said bioactive molecule and allowing said A, B, C, D, E, F, G, H, or I and said J, K, L, M, N, O, P, Q, R, S or T polypeptides to bind to one another, thereby linking said bioactive molecules to said cell, wherein A is a PRO533 polypeptide, B is a PRO301 polypeptide, C is a PRO187 polypeptide, D is a PRO337 polypeptide, E is a PRO1411 polypeptide, F is a PRO10096 polypeptide, G is a PRO246 polypeptide, H is a PRO6307 polypeptide, I is a PRO6003 polypeptide, J is an FGFR-4 polypeptide, K is a PRO301 polypeptide, L is an FGFR-3 polypeptide, M is an FGFR-1 polypeptide, N is an FGFR-2 polypeptide, O is a PRO6004 polypeptide, P is a PRO4356 polypeptide, Q is a PRO2630 polypeptide, R is a PRO246 polypeptide, S is a PRO265 polypeptide and T is a PRO941 polypeptide.

34. The method according to Claim 33, wherein said bioactive molecule is a toxin, a radiolabel or an antibody.

35. The method according to Claim 33, wherein said bioactive molecule causes the death of said cell.

36. A method of modulating at least one biological activity of a cell expressing a polypeptide designated as A, B, C, D, E, F, G, H, or I, said method comprising contacting said cell with a polypeptide designated as J, K, L, M, N, O, P, Q, R, S or T or an anti-A, B, C, D, E, F, G, H, or I polypeptide antibody, whereby said J, K, L, M, N, O, P, Q, R, S or T polypeptide or anti-A, B, C, D, E, F, G, H, or I polypeptide

antibody binds to said A, B, C, D, E, F, G, H, or I polypeptide, thereby modulating at least one biological activity of said cell.

37. The method according to Claim 36, wherein said cell is killed.

5 38. A method of modulating at least one biological activity of a cell expressing a polypeptide designated as J, K, L, M, N, O, P, Q, R, S or T, said method comprising contacting said cell with a polypeptide designated as A, B, C, D, E, F, G, H, or I or an anti-J, K, L, M, N, O, P, Q, R, S or T polypeptide antibody, whereby said anti-J, K, L, M, N, O, P, Q, R, S or T polypeptide antibody or A, B, C, D, E, F, G, H, or I polypeptide antibody binds to said J, K, L, M, N, O, P, Q, R, S or T polypeptide, thereby
10 modulating at least one biological activity of said cell.

39. The method according to Claim 36, wherein said cell is killed.